HYUNDAI MNSOFT

softman DVR R300D
USER MANUAL

BE SURE TO READ CAREFULLY BEFORE USING THE DEVICE!

Thank you for purchasing HYUNDAI MNSOFT softman R300D.
The user manual contains product information, how to use and its specification, etc.
Please be sure to read carefully before use.

○ The user manual was prepared based on softman R300D. It may have errors in editing or description.

○ The product may change without prior notice in order to improve the performance of device.

○ Be sure to use the device within the legal boundaries. Recording other people's voice without permission may be against the law, depending on countries.

■ The user manual may change without prior notice in order to improve the function of device.

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REV 1.0

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Product Feature

- **1.0 M Pixels (1/3” CMOS) security image sensor**
- **120°(diagonal) wide angle of view**
- **Real HD resolution video quality**
  - 1CH : 1280x720p, max 30fps
  - 2CH : 720x480p, max 30fps
- **2CH input port for rear camera**
- **Video playback function through TV using video-out cable**
- **Photo capture function**
- **Various recording method**
  Normal recording : saving a file every 1 minute
  Event recording : saving a 20-sec file independently (before 10 sec & after 10-sec based on the event occurred)
  Manual recording : saving a 20-sec file independently (before 10 sec & after 10-sec based on the button press)
  Parking mode recording : saving a 20-sec file independently (before 10 sec & after 10-sec based on motion detection)
- **Automatic switch to parking mode**
  The device automatically switches to parking mode when the car is turned off.
  This function only works when the device is directly connected with the power supply of the car.
- **Voice guidance for the status of device**
  Easy to know the status of device
- **Backup battery built-in**
  Possible to save the last file although the device is disconnected from the power supply.

- **3axis G-sensor built-in for recognizing the impact**
- **High-intensity LED indicator**
  Indicating the status of device
- **High-intensity security LED on the front for security effect**
- **Video-out port for external display**
  Possible to set up time
- **External GPS(optional), compatible with Google map on PC Viewer**
- **RTC(Real Time Clock) built-in**
- **OSD (On Screen Display)on the recorded files**
- **Automatic alert function for the format of microSD card**
- **Exclusive PC Viewer provided**
- **Firmware upgradable**

1. ATTENTION

About product

Be sure to read carefully before use

- The video files recorded by the device is no legal binding force. It is only for references of the car accident occurred.
- The manufacturer is not responsible for any legal issue for the recorded video or non-recorded video.
- Use the device about 5-10 minutes first and check whether it records properly before main use.
- Be sure to check all cables properly connected with device.
- Keep the lens clean to get a good video quality.
- Clean the glass before attaching the device on it, otherwise, it may fall with ease.
- Be sure to check the proper direction when inserting microSD card into the device.
- Do not operate the device while driving for your safety.
- Do not touch the vent of device that may be hot while recording.
- The device should be installed on the proper location not to disturb driving.
- Do not remove microSD card or turn off the device during firmware upgrade, otherwise, both may cause malfunction.
- Ask for auto-mechanic if you want to directly connect the device with the power supply of car.
- Keep the device and cables clean to avoid the defect.
- Avoid high temperature, humidity, otherwise, the device may be damaged.
- Do not drop, disassemble or give the impact to the device, otherwise, it may be out of order.
- Be sure to disconnect the device from car in case of no use for a long time.

1. ATTENTION

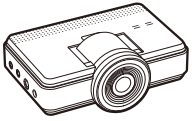
About microSD card

- Do not save other files into microSD card.
- Do not remove microSD card before the device is completely turned off.
- Min. 300MB remaining capacity of microSD card is required for proper recording.
- Be sure to back up the important video files regularly to prevent from losing it.
- Format microSD card regularly for stable recording and error prevention.
- microSD card has life time in reading/writing due to its own characteristic. Recommend to use new microSD card after long use approx. one year.
- Recommend to the supplied case when carrying microSD card to prevent from impact or static.
- Format microSD card by the device before first use.

Customer care

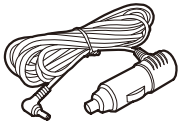
- Contact your local dealer or the shop you bought if the device does not work properly.

2. Product component



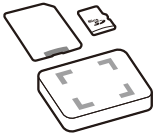
Device

Device holder

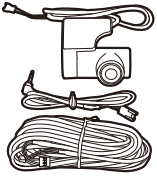


Car Cigar Adaptor

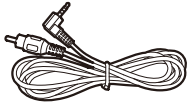
User manual



microSD card

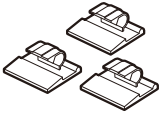


Rear camera



Video-out cable

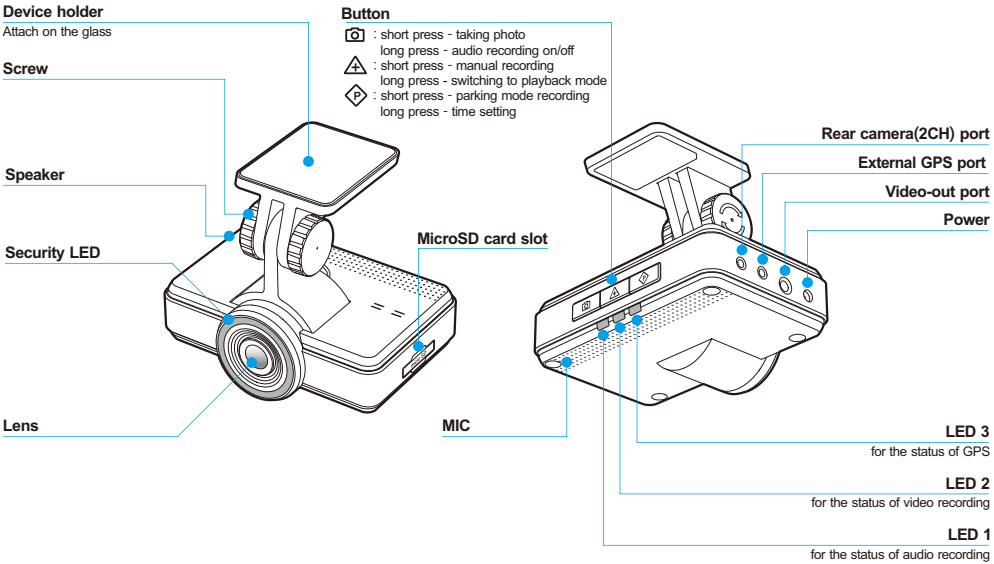
3M tape



Cable mounter(3pcs)

- The component may vary, depending on countries.
- The actual component may be different from photos above

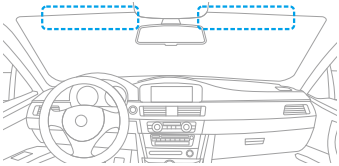
3. Name of device



4. Installation of the device

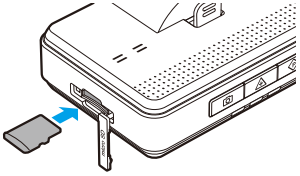
Choose the location to attach the device

- The proper location is around the room mirror of car.
- The location should not disturb driving.



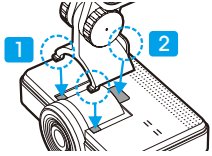
Insert microSD card into the device

- Be sure to check the proper direction when inserting microSD card.



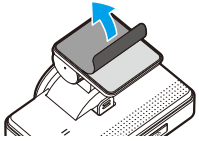
Combine device and body holder

- Insert body holder in order as seen below.
- Body holder is detachable.



Remove tape or read the installation of external GPS(optional) first if the device comes with it.

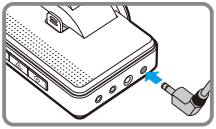
- In case the device comes with external GPS, be sure to read the installation of external GPS first.
- Keep clean the location that the device is attached and remove tape from device holder.



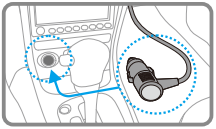
4. Installation of the device

1 Attach the device on the glass.

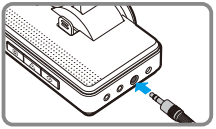
2 Connect car cigar adapter with the device.

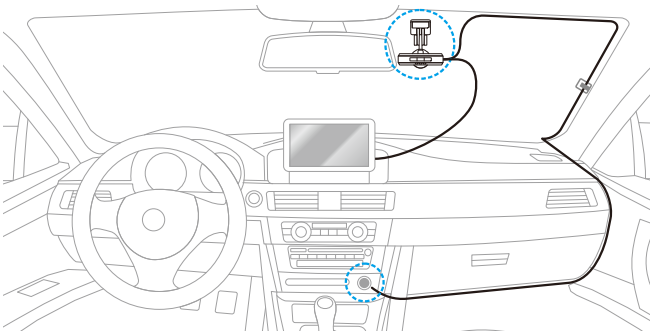


3 Connect car cigar adapter with the cigar socket.

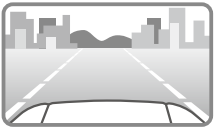


4 Check the recording direction.
If necessary, you may see the screen through external display like navigation using video-out cable.

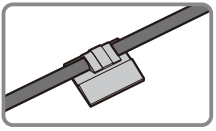




5 The best screen is a front direction with quarter of hood as seen below.



6 Arrange cables with cable mounters.



NOTE

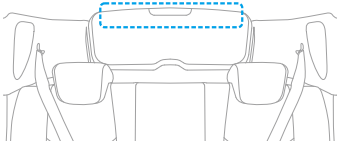
To connect the device with navigation using video-out cable, the navigation should have AV-in port.

4. Installation of the device

Installation of the rear camera(2CH)

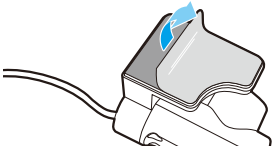
A. Choose the location to attach the rear camera

- The proper location is the upper area of backside glass.
- The recorded video may be dark in case of the tinted glass.



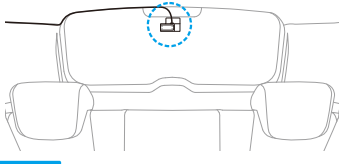
B. Remove tape

- Keep clean the location that the rear camera is attached.
- Remove tape from the rear camera.



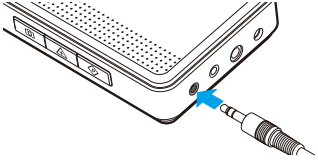
C. Attach the rear camera

- After attaching the rear camera, arrange the cable.



D. Connect the rear camera with the device

- Connect the jack of rear camera with 2CH port of device.
- Be sure to check the jack is firmly connected.



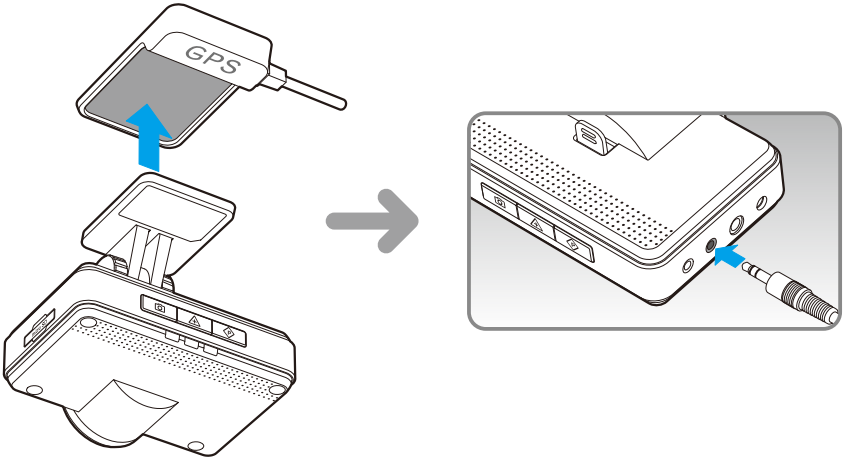
NOTE

Be sure to check the device is turned off when connecting the rear camera..

4. Installation of the device

Installation of external GPS (optional)

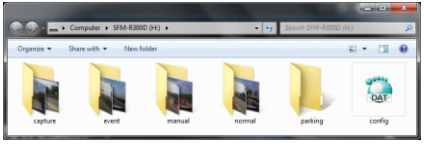
- Attach external GPS on the device holder.
- Firmly connect the jack of GPS with the device.
- Keep clean the location that the device is attached.
- Remove tape from external GPS and attach the device on the glass.



5. Contents of microSD card

Recording folder

If you use the device after inserting microSD card, “capture”, “event”, “manual”, “normal”, “parking” folders are created as seen below.



Folder	Description
capture	photo files
event	event recording files by G-sensor
manual	manual recording files by button press
normal	normal recording files for whole driving
parking	motion detection files on parking mode

Recording time & the number of files

Recording time and the number of files are different, depending on the capacity of microSD card (both 1CH and 2CH).

Folder	8GB		16GB		32GB	
	Recording time	files	Recording time	file	Recording time	file
capture	-	500	-	500	-	500
event	800 sec	80	2000 sec	200	4000 sec	400
manual	400 sec	40	400 sec	40	400 sec	40
normal	3360 sec	112	7140 sec	238	15960 sec	532
parking	1600 sec	160	3000 sec	300	5000 sec	500

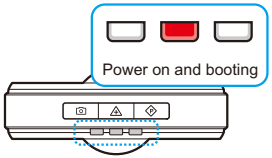
NOTE

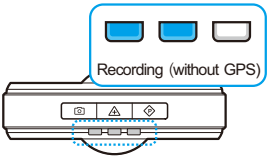
❖ If the folder is full, the firstly saved files are automatically deleted in order so the new files are saved continuously.
❖ Be sure to back up the important files regularly before they are deleted.
❖ The number of files and file size may be different depending on the status of microSD card and recording mode, etc.

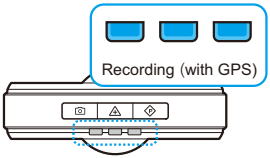
6. Basic operation

Connecting power

► When the device is power on, LED2 is on in red and booting. After completing the booting, the device starts recording. LED1 and LED2 are on in blue color.
► With GPS, LED3 is on in blue color when GPS signal is receiving.



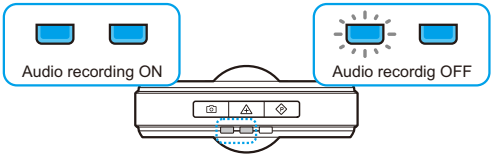




Normal recording

A. Starting normal recording

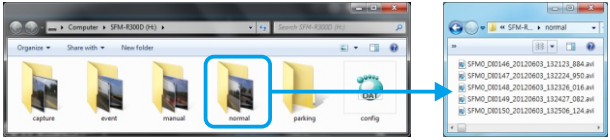
► On audio recording on, both LED1 and LED2 are on in blue color.
► On audio recording off, LED1 is blinking and LED2 is on in blue color.



6. Basic operation

B. Files of normal recording folder

► Files are saved in normal folder in time sequence. File format is .avi.
► The file name is created as "SFM0_DI0001_20120516_204227_421.avi".
example) "initial_file number_year/month/date_hour/min/sec_1/1000sec".
► File number begins from 0000 again in case of the format of microSD card.
► Normal recording file is saved every 1 minute. Event or manual recording file may be shorter than 1 minute.
► If the folder is full, the firstly saved files are automatically deleted in order so the new files are saved continuously.
► Both front and rear video are saved in one file at the same time. SFM0_xxx is front video, SFM1_xxx is rear video by rear camera.



C. Button press in normal recording

BUTTON	Short press		Long press (3~5 sec)
	In normal recording	In [Voltage Sensing] of parking mode	
	Taking photo	In case of car turned ON	Audio recording ON/OFF
	Manual recording		Switch to video playback mode
	Switch to parking mode recording	In case of car turned OFF	Time setting ON/OFF through video-out connection with external display
+			format of microSD card

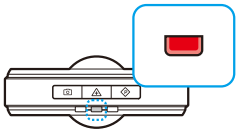
6. Basic operation

D. Event recording occurred in normal recording

In normal recording, event recording starts in case of recognizing impact by G-sensor.

► Event recording files are saved in event folder.
One file is max. 20 sec (before 10 sec & after 10 sec based on impact occurred).

► When the event is occurred, LED2 turns into red color with sound effect.



E. LED indication in normal recording

Recording mode		Status of LED			
		LED1	LED2	LED3	
				GPS ON	GPS OFF
Normal recording	Audio recording ON	■	■	■	□
	Audio recording OFF	☼			
parking mode recording	Audio recording ON	■	□	■	□
	Audio recording OFF	☼			
Event recording	Audio recording ON	■	■	■	□
	Audio recording OFF	☼			
Manual recording	Audio recording ON	■	■	■	□
	Audio recording OFF	☼			

Mode	Status of LED			
	LED1	LED2	LED3	
			GPS ON	GPS OFF
Video playback	☼	☼	■	□
Time setting	☼	☼	■	□
Automatic high-termperature cutoff	☼	☼	☼	
Format of microSD card	☼	☼	□	
abnormal recording or no microSD card	☼	☼	□	
Firmware upgrade	☼	☼	□	

NOTE

- ● LED is on.
- ☼ LED is blinking repeatedly.
- ○ LED is off.

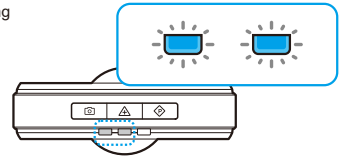
6. Basic operation

F. Voice guidance in normal recording

Mode	Voice guidance
Normal recording	[Voice] Start recording.
Event recording	[Sound effect] one time
Manual recording	[Voice] Start manual recording.
Taking photo	[Sound effect] one time
Abnormal recording	[Voice] Please format the memory.
Power off	[Voice] System will automatically shutdown

G. In case of removing microSD card in normal recording

► In case of removing microSD card during normal recording, LED1 & LED 2 are blinking in blue color. The device announces [Please format the memory].



NOTE

Removing microSD card abnormally during recording may cause malfunction, as well as, may not save video files.
Be sure to remove it properly after power off.

6. Basic operation

H. Power off in normal recording

If the power is off in normal recording, the last file is saved until the device is turned off.

► If the cigar adapter is disconnected from the device, the device is turned off.

► If the cigar adapter is connected with the device within 5 sec again, the device keeps working without power off.

► Do not remove microSD card until LEDs are completely off, otherwise, the last file may be not saved into it.

Parking mode recording (Motion detection recording)

A. Starting parking mode recording

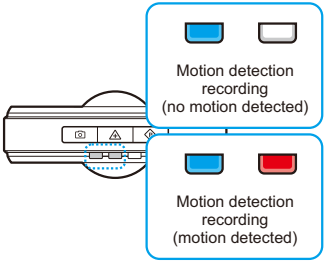
In parking mode recording, the device starts recording if the motion is detected within view angle of lens. In case of no motion detected, the device is turned to standby mode without recording.

► Short press "Ⓟ" to switch to parking mode recording, then LED2 is off and LED1 is on in blue color.

► In case of motion detected, LED2 turns to red color until the recording is finished.

► One file is max. 20 sec (before 10 sec & after 10 sec based on motion detected).

► Short press "Ⓟ" again to go back to normal recording.

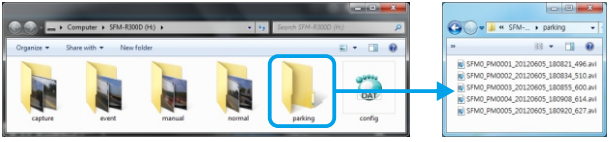


6. Basic operation

NOTE

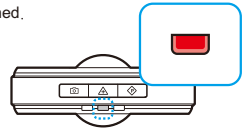
❖ In parking mode recording, the number of files created are different depending on the capacity of microSD card. It is max. 300 files based on 16GB.
❖ If the folder is full, the firstly saved files are automatically deleted in order so the new files are saved continuously.
❖ In parking mode recording, the device does not carry out normal recording.

► Files are saved in parking folder in time sequence.
► The form of file names is same with one by normal recording.



B. Event recording occurred in parking mode recording

► When event is occurred in parking mode recording, LED2 turns to red color until the recording is finished.
► One file is max. 20 sec (before 10 sec & after 10 sec based on impact occurred).



NOTE

G-sensor sensitivity can be managed by PC Viewer.

6. Basic operation

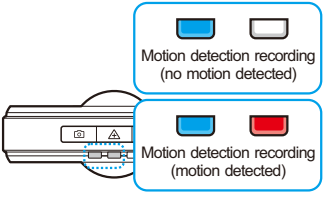
C. Automatic switch to parking mode recording

► In case of parking mode set in auto, the device automatically switches to parking mode recording when the car is turned off. If motion is detected within view angle of lens, the device starts recording.

► When the car is turned on, the device automatically switches to normal recording.

► In case of no motion detected in parking mode recording, LED1 is on in blue color and LED2 is off.

► In case of motion detected, LED1 is on in blue color, LED2 turns to red color until the recording is finished.



NOTE

❖ To set up parking mode to auto or manual, the configuration is necessary by PC Viewer. Default is manual.

HOT POINT

❖ In parking mode set in auto, you can choose [Voltage Sensing] and [Vibration Sensing]. Default is [Voltage Sensing] in auto mode.

❖ When using the device for the first time after setting up [Voltage Sensing] in parking mode, the device needs to check the car turned on and off. In case of [Vibration Sensing], checkup is not necessary.

❖ In case of [Voltage Sensing], turn on the car and press " 📷 ". Afterward, turn off the car and press "P" to finish the setup. Now [Voltage Sensing] in parking mode is activated.

NOTE

Normal recording mode and [Voltage Sensing] of parking mode are automatically switched by the voltage measurement. To use [Voltage Sensing] of parking mode, the following are required.

❖ To use the function of parking mode recording, the device should be directly connected with the power supply of car. Ask for auto-mechanic, regarding the direct connection.

6. Basic operation

❖ Be sure to set up by both PC Viewer and the car
Parking mode of auto only works properly after setup is completely done by both PC Viewer and the car. Insert microSD card into the computer and run PC Viewer. Open microSD card and go to configuration. Choose [Auto] in parking mode and click [Save]. Take out microSD card and insert it into the device. After installing the device in the car, turn on the device and car and set up the device, according to voice guidance.

❖ Be sure to turn off all other devices before checking voltage measurement
After turning on the car, be sure to turn off all other devices like light, audio, air conditioner, heater, etc in order to check exact voltage measurement. After that, press " " and turn off the car and press " " to finish the setup

❖ Switching time to parking mode may vary depending on the battery status of car.
Switching time to parking mode is 20 minutes after the car turned off. However, it may vary depending on the battery status of the car.

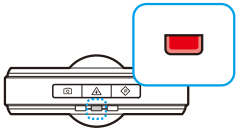
❖ If the car does not support [Voltage Sensing] due to the battery status, it automatically switches to [Vibration Sensing].

❖ Need to set up parking mode of auto again for the following.
1. In case of installing the device in other car 2. In case of changing power supply such as battery, generator, etc.

Manual recording

A. Starting manual recording

► Short press " " for manual recording, then LED2 turns to red color and manual recording starts.
► One file is max. 20 sec (before 10 sec & after 10 sec based on button press).



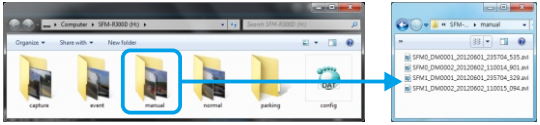
NOTE

❖ Manual recording is not working during event recording.
❖ Event recording is not working during manual recording.

6. Basic operation

B. Files of manual recording folder

► Manual recording files are saved in manual folder.
► The form of file names is same with one by normal recording.



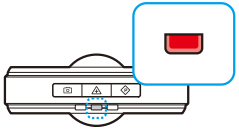
NOTE

The number of files is max. 40 files created including 1CH(front) & 2CH(rear).
If the folder is full, the firstly saved files are automatically deleted in order so the new files are saved continuously.

Event recording (by recognizing the impact by G-sensor)

A. Starting event recording

► When event is occurred, LED2 turns to red color until the recording is finished.
► One file is max. 20 sec (before 10 sec & after 10 sec based on impact occurred).

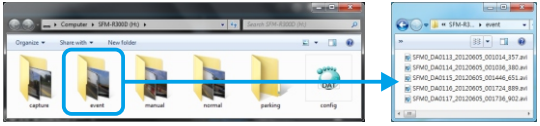


NOTE

G-sensor sensitivity can be managed by PC Viewer.

B. Files of event recording folder

► Event recording files are saved in event folder.
► The form of file names is same with one by normal recording.



6. Basic operation

NOTE

❖ If the device is turned off during event recording, the last file is saved before the device is completely off.
❖ In event recording, the number of files created are different depending on the capacity of microSD card. It is max. 200 files based on 16GB.
❖ If the folder is full, the firstly saved files are automatically deleted in order so the new files are saved continuously.

Playback of video files

BUTTON	DISPLAY	Short press	Long press (3~5 sec)
	C	Next file playback	Next folder
	M	Play / Pause	Switch to recording mode
	P	Previous file playback	Previous folder

► Long press "⚠" to go to video playback mode.
► Recording stops during video playback mode.
► Files are playing one by one and it stops if all files are played.
► In case of no button press about 1 min during playback mode without paying file, the device automatically switches to recording mode.

NOTE

❖ To use the function of playback mode, the device should be connected with external display using video-out cable. For example. navigation with AV-in port.
❖ To change the front and rear video during playback, long press both "📷" and "Ⓟ" at the same time.

6. Basic operation

Time setting

BUTTON	DISPLAY	Short press	Long press (3~5 sec)
	CAPTURE	Increase number (+1)	
	MANUAL	cursor moving	
	PARKING	Decrease number (-1)	Switch to recording mode

- ► Long press “ Ⓟ “ to go to time setting.
- ► Recording stops during time setting.
- ► In case of no button press during time setting, the device automatically switches to recording mode.
- ► Long press “ Ⓟ “ to save time setting, otherwise, the new time is not saved.

NOTE

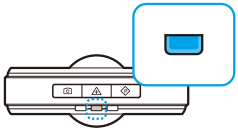
❖ To use time setting, the device should be connected with external display using video-out cable. For example. navigation with AV-in port.
❖ In case of device equipped with external GPS, time is automatically setting by GPS.

6. Basic operation

Additional function

A. Audio recording on/off

Long press “ ” for audio recording on or off. Default is on.
► In case of audio recording on, LED1 is on in blue color.
In case of audio recording off, LED1 is blinking in blue color.

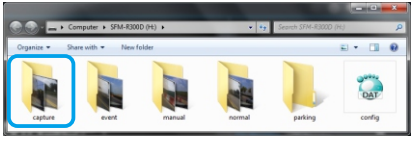


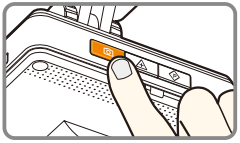
NOTE

Setting is maintained if it is changed, regardless device on or off.

B. Taking photos

► Short press “ ” to take a photo. Both front and rear photo are taken.
► The file is saved in capture folder as .jpg format.





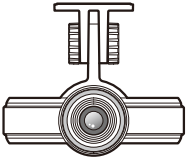
6. Basic operation

C. Setup of security LED working

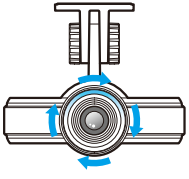
► The working way of security LED can be managed by PC Viewer.

► There are 4 different working ways of security LED (ON, OFF, Panorama, Flickering).

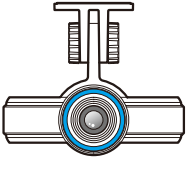
► Default is panorama.



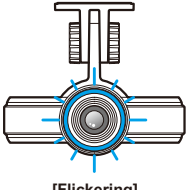
[OFF]



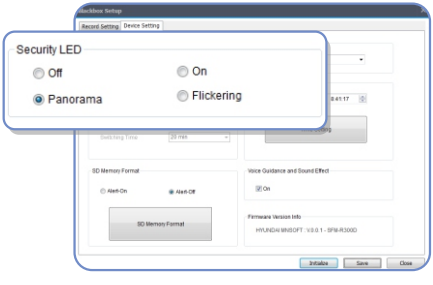
[Panorama]
Light moving clock-wise



[ON]



[Flickering]
Light blinking repeatedly.

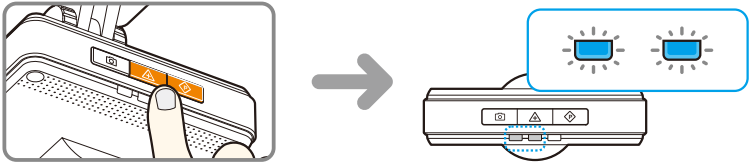


6. Basic operation

D. Format of microSD card

▷ Long press both " ⚠ " and " ◈ " at the same time in order to format microSD card.

▷ During the format, LED1 and LED2 are blinking in blue color until the format is finished.



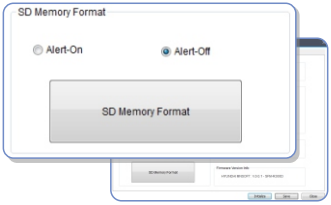
NOTE

Be sure to back up the important files before formatting microSD card.

E. Alert function for the format of microSD card

► Due to the characteristic of microSD card in reading/writing, it may cause errors in case of a long time of use. To avoid this matter, the device has alert function for the format of microSD card.

► Alert function for the format of microSD card can be managed by PC Viewer (Default is off).



NOTE

❖ In case of alert, be sure to format microSD card for safe use.

❖ In case of format necessary, the device is alerting every 30 minutes.

6. Basic operation

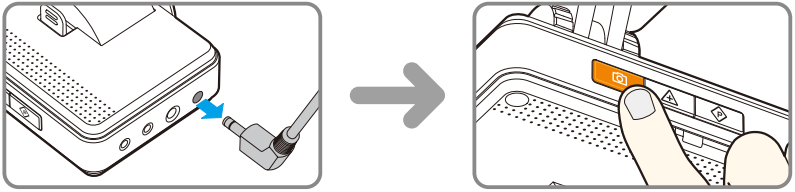
Method of HD recording

► Possible to play back video files connecting with external display like navigation with AV-in.
► To use the function, choose [Play] at [Method of HD Recording] of PC Viewer.
► The file resolution is CIF(352x240P).

6. Basic operation

Power off by force

The device may not be turned off due to malfunction.
In this case, disconnect cigar adapter from the device and press " " to power off by force.

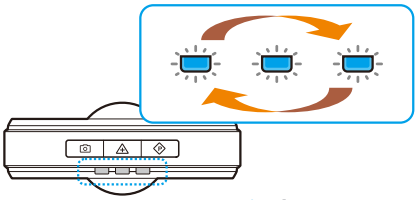


NOTE

Power off by force may cause error of microSD card. Be sure to format it before using again.

Automatic high-temperature cutoff

To protect the circuit board, the device is equipped with automatic high-temperature cutoff function. If temperature is too high around the device, the device turns to standby mode automatically and stops recording.
On standby mode, all LED1, LED2, LED and security LED are blinking in blue color.
When temperature gets lower, the device turns to work and starts recording again.



7. PC Viewer

Installation

Insert microSD card into the computer.

Double click “setup.exe” in microSD card and install PC Viewer into the computer.

After finishing installation, double click “softman R300D” to run.

[Minimum requirement for PC Viewer]

OS : Windows XP(32bit), Vista(32bit), 7(32/64bit)
H/W : Pentium4 2.8GHz or above / 1G RAM or above
Webbrowser : Internet Explorer 7.0 or above
Direct X : Direct X 9.0 above
Others : Windows.NET Framework 2.0 or above

7. PC Viewer

Screen

A. Main screen

8. Specification

※ Specification may change for improvement without prior notice.

Description	Specification	Remark
Model	softman R300D	
Recording memory	microSD card	8GB ~ 32GB (CLASS 10 or above)
Image sensor	CMOS	
Power	DC 12/24V	
Power consumption	max. 400mA	
min. illuminance	1 LUX	
MIC	Bulit-in	
LED Indicator	3EA	
Video-output	NTSC (Composite)	
Angle of view	Diagonal 120˚/ Horizontal 92˚ / Vertical 67˚	
Resolution	1CH(front): 1280(H) x 720(V) HD / 2CH(rear): 720(H) x 480(V) D1	
Channel	2CH (front & rear)	
Pixel	1.0M Pixel	
Frame	1CH(front): max. 30 fps / 2CH(rear): max. 30 fps	
Video format	H.264 (AVI)	
Audio format	PCM	
Recording mode	Normal / Event / Manual / Parking mode recording	
GPS	External GPS (SiRF 4)	optional
Button	3EA	
High-temperature cutoff	Built-in	
Security LED	Blue LED	ON / OFF / Flickering / Panorama
Working temperature	-10℃ ~ 60℃	
Storage temperature	-20℃ ~ 70℃	
Dimension / Weight	87.5(W) x 25(H) x 47.4(L) mm / 85g	excluding device holder

Serial Number

soft, beyond smart

HYUNDAI MnSOFT